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# MISA

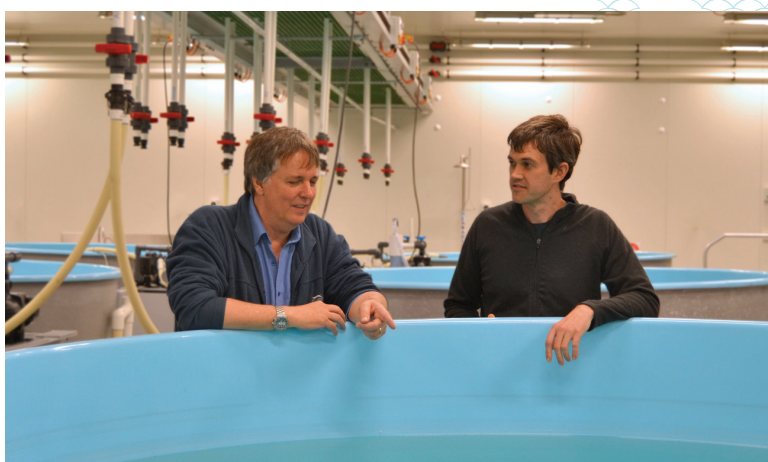
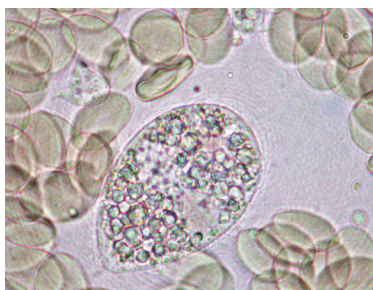
## South Australian Aquatic Biosecurity Centre (SAABC)

Many of Australia's industries rely on healthy aquatic environments, organisms and uncontaminated waters. These sectors are vital to Australia's continued prosperity, especially in regional Australia.

It is critical that Australia's aquatic environments be safeguarded against the many pests and diseases that threaten our ecosystems, fishing industries, exports and even our lifestyle.

Safe research involving marine pathogens and pests, once restricted by limited infrastructure in Australia, is now strengthened with the establishment of MISA's South Australian Aquatic Biosecurity Centre (SAABC), at Roseworthy Campus, north of Adelaide.

The SAABC is located at the University of Adelaide's School of Animal and Veterinary Sciences' Veterinary Health Centre and is available to all relevant researchers and industry on a fee for service basis.



### Biosecure Aquatic Research

The SAABC is the only facility of its kind in Australia providing aquatic animal health researchers with biosecure conditions for the study of aquatic pathogens and pests in a large system that aids in achieving meaningful applied research.

The SAABC has the capacity to service projects on aspects including fisheries, aquaculture, ornamental fish, aquatic diseases and pests, invasive species, conservation and sustainable resource management.

SAABC's secure conditions provide aquatic biosecurity researchers with state of the art facilities in which to investigate marine and freshwater organisms that require biocontainment in the areas of pathogen transmission, pathology and epidemiology, pest reproduction and growth, invasion dynamics and control.

The SAABC is also an ideal facility to support the development of environmental diagnostic capacity, for the assessment of environmental samples for invasive species and pathogens.



## Advantages

Researchers have access to the University of Adelaide's adjacent Veterinary Health Centre's diagnostic laboratories for sample preparation and processing. There is also access to the expertise of the Centre's veterinary pathologist, aquatic virologist and epidemiologist. Strong linkages to MISA staff with specialised aquatic biosecurity expertise, and with University staff with broader animal veterinary expertise, as well as undergraduate through to post graduate students, bring unique strengths to the Veterinary Health Centre, and to MISA's researchers and clients.

The co-location also provides unique opportunities for the School's veterinary teaching and training with an aquatic health stream incorporated into the veterinary curriculum.



## Facilities

The SAABC is constructed to meet the requirements for certification as a Physical Containment Level 2 (PC2) Aquatic Organism Facility under sections 86 and 90 of the *Gene Technology Act 2000* and as an AQIS Quarantine Approved premise (QAP). Its size and flexibility regarding tank use can accommodate several projects of different sizes simultaneously.

It includes marine and freshwater recirculation systems and a decontamination unit comprising filters, a heater and ultra-violet systems, together capable of decontaminating all described life stages of aquatic pathogens and all aquatic pests.

Tanks of 200 and 5,000 litres are installed with individual biofilters, aerators and UV decontamination. The layout is sufficiently flexible that tanks can easily be removed and replaced if different configurations are required for specific projects.

The temperature of the entire system is controlled by ducted airconditioning, but the tank filtration units include heaters so that the temperature of individual tanks can also be controlled.

The SAABC enables research on pests, pathogens and gene technologies at a larger scale than could be readily secured in existing aquatic research facilities.



## Contact

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Government  
of South Australia



Marine Innovation SA (MISA), an initiative of the South Australian Government, is a partnership between the South Australian Research and Development Institute (SARDI), Flinders University, the University of Adelaide, the South Australian Museum and the SA seafood industry.

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